

ABSTRACT

To ensure the durability of an electric press apparatus while the working accuracy is maintained. A differential mechanism 9 of an electric press apparatus having a connecting mechanism 17 fixed to a nut member 8 threadedly engaging with a ball screw shaft 15 rotated by a motor 22 and a slide plate 25 is configured so as to include

a frame body 92 which

has inner wall surfaces hollowed out with an opening portion being on the upside,

and is formed with a slide groove at the bottom portion in inner wall surfaces, the opening portion forming a rigid body;

a movable body 91 which

is provided with a slide groove on the back surface side of the upper plate portion having an inclined surface portion the back surface of which is inclined,

and is fitted in the opening portion of the frame body 92;

a differential member 94 which

has a first guide engagement portion, which slidably engages with the slide groove formed in the frame body 92, in the lower end portion,

has a second guide engagement portion, which slidably engages with the slide groove formed on the back surface side of the movable body 91, in the upper end portion,

has an upper surface portion being inclined and a lower surface portion being horizontal,

and has a wedge shape fitted so as to be slidable in the frame body 92;

and a screw shaft 95 for moving the differential member 94 by means of a motor 28.